

REMARKS

Claims Rejection - 35 U.S.C. §103

Claims 1, 3, 7, 30, 115, 116, 117, 119, and 122 were rejected as being anticipated by Canadian Patent 1,236,030 to Joutsiniemi in view of U.S. Patent 5,463,257 to Yea.

The Examiner argues that it would have been obvious to one with ordinary skill in the art to combine the Joutsiniemi device with the airfoils as disclosed in Yea. Applicant respectfully disagrees and asserts that: (1) the teachings of Joutsiniemi teaches away from combination with Yea; (2) the teachings of Yea teaches away from the combination with Joutsiniemi; and (3) the resulting combination of Joutsiniemi and Yea does not disclose, teach, or suggest Applicant's unique wind turbine apparatus.

Joutsiniemi teaches the use of a plurality of elongated, generally blade-like support ribs that rigidly interconnect the outer edge of each wing with the inner edge of the other wing. [Abstract]. The purpose of the ribs are to “[increase] the stability of the rotor and, at the same time, improve the wind flow conditions within the rotor.” [Abstract].

Yea teaches the use of a plurality of flow guiding plates 11 which are installed between a top plate 12 and a bottom plate 13 of the outer tower 1. Some of the flow guiding plates 11 are fixed in position for supporting the weight of the top plate. [Column 3, Lines 12-19]. The rest of the flow guiding plates 11 are arranged to be freely movable and can be turned using a control wheel 16 connected to a chain 15. As a result, the flow guiding plates can be adjusted so that the air flow that is drawn inside the outer tower will not be too strong and cause damage to the inner tower. [Columns 3, Lines 23-26; and 34-36].

As taught by Joutsiniemi, in order for the blade-like support ribs to provide stability to the rotor and possibly increase the wind flow conditions, the support ribs must be located on the inside of the wing. This is completely opposite of the disclosures and teachings of Yea.

Likewise, as taught by Yea, in order for the flow guiding plates to force wind currents into the inner tower, the flow guiding plates must be located on the outside tower. This is completely opposite of the disclosures and teachings of Joutsiniemi.

If Joutsiniemi and Yea are combined as suggested by the Examiner, the resulting combination also does not disclose, teach, or suggest Applicant's wind turbine apparatus for the

following reasons. First, while the flow guiding plates in Yea may be adjusted to different angles to the wind, these flow guiding plates serve as a deflector to divert the wind flow into the inner tower only. Applicant's airfoil blades, on the other hand, can not be used as deflectors or to divert wind flow into the rotor. Instead, Applicant's airfoil blades are used to generate lift and power for the device independent of the rotor blades. Second, the plurality of flow guiding plates in Yea can not rotate about the same longitudinal axis of rotation. Applicant's airfoils can. Third, the flow guiding plates in Yea can not turn in wind conditions while maintaining a fixed spatial relationship with respect to the rotating blades. Applicant's airfoils can. Fourth, the flow guiding plates in Yea can not drive the wind power machine independent from the blades when rotating in the opposite direction to the wind. Applicant's airfoils can. Lastly, with respect to the differences between Joutsiniemi and Applicant's device, please refers to Applicant's Amendment, dated September 28, 2005, pages 29-31.

As set forth in *Ex Parte Clapp*, 227 U.S.P.Q. 972 (1985) and *In Re Geiger*, 2 U.S.P.Q.2d 1276 (CAFC 1987), in order to support a conclusion that the claimed combination is directed to obvious subject matter, the combination must be taught by the references themselves. It is well settled that the mere fact that references can be combined does not make the combination obvious under 35 U.S.C. §103, unless the prior arts contain the teaching of the combination. As the above detailed analysis makes clear, the combination of Joutsiniemi and Yea does not disclose, teach, or suggest Applicant's wind turbine apparatus and, in fact, these references actually teach away from one another.

Applicant further asserts that the Examiner's position is provided in light of Applicant's disclosure and that the Examiner is relying upon hindsight in proposing the combination of Joutsiniemi and Yea. However, but for the Examiner's knowledge of Applicant's device, the combination of references would not have occurred to the Examiner. Applicant's assertion is further supported by the fact that those skilled in the art have not combined the cited references to design Applicant's device. Thus, the proposed combination of references cited by the Examiner is predicated upon the Examiner's knowledge of Applicant's device and is not obvious to a person skilled in the art.

Additionally, during a telephone interview with the Examiner, the Examiner made reference to U.S. Patent 6,787,934 to Parviainen; U.S. Patent 3,050,007 to Rydz; and U.S. Patent 1,718,304 to Peterson. Applicant asserts that these patents do not individually or, in combination with Joutsiniemi, disclose, teach, or suggest Applicant's unique wind turbine apparatus.

Parviainen teaches a turbine having a first rotating portion configured to rotate about an axis and a second rotating portion configured to rotate about the same axis. The first rotating portion has a plurality of first fluid outlets and the second rotating portion has a plurality of second fluid outlets with the outlets configured so that when a fluid flows out the first fluid outlets, the first rotating portion rotates in a first sense, and the fluid is forced out the second fluid outlets thereby causing the second rotating portion to rotate in a sense opposite to the first sense. [Abstract]. The novel system of the invention converts the flow of the fluid into counter-rotational motion of the first and second rotating portions of the turbine. [Column 3, Lines 1-5].

Rydz teaches a propeller apparatus having a first propeller having a group of fixed blades 11 surrounded by a coaxial group of movable blades 12 such that each rotatable blade 12, during operation, can enter into a type of scissors relation to the fixed blades 11. [Column 2, Lines 36-37, 44-47, and 64-67]. A second propeller is disclosed having stationary blades 21 having another group of blades 22 rotatable about the stationary blades 21. The two propeller units cooperating in driving the vessel forward. [Column 3, Lines 447-53, and 66-67].

Peterson teaches a wind motor having feathering blades fixed at one end to a shaft 17 and rotatable using mechanical components such that the feathering blades can be placed in an open position so that the wind or current can pass between them and come in contact with the V-shaped pockets of the angular vanes associated with the rotatable drum that is operatively associated with the vertical drive shaft 6. [Column 3, Lines 5-10, and 20-28].

As taught, Parviainen, Rydz, and Peterson do not individually or, in combination with Joutsiniemi, disclose, teach, or suggest Applicant's unique wind turbine apparatus for at least the following reasons. (1) none of these patents disclose a helically twisted blade, (2) the first and second propellers in Parviainen and the first and second rotating portions of the turbine in Rydz rotate in opposite directions from one another and therefore teach away from Applicant's device which claims the helically twisted blade and plurality of airfoil blades rotate in the same

direction and about the same axis, (3) none of the patents disclose maintaining a fixed spatial relationship between a helically twisted blade and the plurality of airfoil blades during rotation, and (4) none of the patents disclose a plurality of airfoil blades each independently harnessing wind for driving a wind turbine apparatus or an airfoil blade driving a wind turbine apparatus independently from the helically twisted blade when the airfoil is rotating in the opposite direction to the wind.

Accordingly, Applicant asserts that Claims 1 and 115, as amended, present allowable subject matter.

As Claims 3, 7, and 30 depend from independent Claim 1 which, as amended, presents allowable subject matter and Claims 116, 117, 119, and 122 depend from independent Claim 115 which, as amended, presents allowable subject matter, Claims 3, 7, 30, 116, 117, 119, and 122 likewise present allowable subject matter.

Claims Rejection - 35 U.S.C. §103

Claims 2, 8, 11, 12, 13, 19, 22, 24, 28, 29, 31, 32, 56, 120, 121 were rejected as being unpatentable over Joutsiniemi, Yea, and in view of Trigilio (U.S. Patent 4,551,631).

Claims 4, 5, and 36 were rejected as being unpatentable over Joutsiniemi, Yea, and in view of Smith (U.S. Patent 1,100,332).

Claims 9 and 21 were rejected as being unpatentable over Joutsiniemi, Yea, Trigilio, and in view of Link (U.S. Patent 6,358,009).

Claims 14, 47-53 were rejected as being unpatentable over Joutsiniemi, Yea, Trigilio, and in view of Moriaki (JP 60-090992).

Claims 27 and 33 were rejected as being unpatentable over Joutsiniemi, Yea, Trigilio, and in view of Teasley (U.S. Patent 4,318,019).

Claim 34 was rejected as being unpatentable over Joutsiniemi, Yea, Trigilio, and in view of Mead (U.S. Patent 4,229,661).

Claims 6, 37-39, and 41 were rejected as being unpatentable over Joutsiniemi, Yea, and Smith and in view of Minh (U.S. Patent 5,982,046).

Claims 43, 71, 72, and 73 were rejected as being unpatentable over Joutsiniemi, Yea, Smith, Minh and in view of Russell (U.S. Patent 6,172,429).

Claim 44 was rejected as being unpatentable over Joutsiniemi, Yea, and in view of Rocklitz (U.S. Patent 6,451,080).

Claim 118 was rejected as being unpatentable over Joutsiniemi, Yea, and in view of Goldwater (U.S. Patent 4,684,817).

Claims 57 and 58 were rejected as being unpatentable over Joutsiniemi, Yea, and in view of Jamieson (U.S. Patent Application 2003/0230898).

Claims 10, 20, 42, and 68 were rejected as being unpatentable over Joutsiniemi, Yea, Trigilio, Smith, and Minh and in view of ordinary skill in the art.

Claims 15-18, 23, 25, 35, 45, 46, 54, 55, 59-67, 69 and 70 were rejected as being unpatentable over Joutsiniemi, Yea, Trigilio, Smith, Moriaki, and in view of ordinary skill in the art.

Claims 26 and 40 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response: As Claims 2-73 depend from independent Claim 1 which, as amended, presents allowable subject matter and Claims 116-122 depend from independent Claim 115 which, as amended, presents allowable subject matter, Claims 2-73 and 116-122 likewise present allowable subject matter.

Applicant submits that the application is now in condition for allowance and respectfully requests the Examiner to take such action.

If the Examiner believes that a telephone interview with Applicant's attorney would be beneficial, please do not hesitate to contact the undersigned.

Respectfully submitted,

By: 

David J. Hurley, Reg. No.:46,786

KNECHTEL, DEMEUR & SMLAN
222 South Riverside Plaza, Suite 1410
Chicago, IL 60606
Phone: 312/655-9900